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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,427

12/09/2005

Mats Malmqvist

1506-1084

7098

466

7590

06/23/2009

YOUNG & THOMPSON

209 Madison Street

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EXAMINER

KWAK, DEAN P

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

06/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/535,427	Applicant(s) MALMQVIST ET AL.	
	Examiner DEAN KWAK	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 1-9, 19, 21, 22, 24-26 and 28-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-18, 20, 23 and 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>05/19/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 1-9, 19, 21, 22, 24-26, 28-35 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Groups I & III, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 04/27/2009. Due to an inadvertent typographical error on Restriction Requirements dated 04/27/2009, Claims 19 & 21 were grouped with Group II. Said claims should have been grouped with Group I, dependent on Claim 1 as disclosed by the Applicant. For the purpose of this Office Action, the elected Group II of Claims 10-18, 20, 23 & 27 will be examined.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 10-18, 20, 23 & 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Malmquist et al. (WO 00/58013).

Regarding Claim 10, Malmquist et al. discloses a method for enhancing mass transport between a surface and the bulk of a solution, in contact with said surface, **characterized** in that said solution (e.g., contents, Abstract) is placed in a vessel (e.g., reaction vessel, Fig. 1 (2))

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suitable for centrifugation (Abstract), and subjected to asymmetric heating, cooling and simultaneous centrifugation (Abstract) at conditions for creating an enhanced flow within said reaction mixture, wherein the asymmetric heating and cooling consists in the creation of a temperature difference between subsets of said reaction mixture and said flow ensures practically total mixing and homogenisation of the reaction mixture (P1/L5-6).

Regarding Claims 11-18, 20, 23 & 27, Malmquist et al. further discloses the method wherein:

- the asymmetric heating and cooling consists of the walls of the reaction vessel being cooled, while a portion of the reaction mixture is heated (P8/L13-15);
- the central portion of the reaction mixture is heated while the walls of the reaction vessel are being cooled (P8/L13-15);
- the reaction mixture is subjected to a centrifugal force exceeding 500x g (P11/L25);
- the reaction mixture is subjected to a centrifugal force in the interval of about 500 to about 20,000x g (P11/L25);
- the reaction mixture is subjected to a centrifugal force in the interval of about 1,500 to about 20,000x g (P11/L26);
- the reaction mixture is subjected to a centrifugal force in the interval of about 5,000 to about 15,000x g (P11/L26);

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- the heating of a subset of the reaction mixture is performed by a method of heating chosen among an IR-source (e.g., tubular IR lamp, P11/L15), and a microwave element (P4/L21);
- the cooling of the walls of the reaction vessel is performed by convection cooling (P9/L20) or the use of a circulating cooling medium (P9/L21);
- performing chemical synthesis (e.g., PCR, P15/L17-21);
- performing an assay (e.g., PCR, P15/L17-21); and
- said device has means for holding a vessel suitable for centrifugation (Abstract & Fig. 1 (1)), and means for subjecting said vessel to asymmetric heating, cooling and simultaneous centrifugation (P8/L13-15) at conditions for creating an enhanced mass transport between the bulk of reaction mixture and the surface of said vessel, wherein said flow ensures that the entire bulk of the reaction mixture repeatedly passes a defined location in the vessel (P8/L4-18).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEAN KWAK whose telephone number is 571-270-7072. The examiner can normally be reached on M-TH, 5 am - 3:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11Jun09

/D. K./

Examiner, Art Unit 1797

/Lyle A Alexander/

Primary Examiner, Art Unit 1797